Spent Nuclear Fuel (SNF) Transfer between SRS and INL

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Federal Project Director

Spent Nuclear Fuel Decisions

- 2006 DOE approved the Enriched Uranium Disposition Project Plan which included the H-Canyon facility at SRS to process Al-based SNF

- 2007 DOE approved the Enriched Uranium Disposition Project Baseline

- A Supplement Analysis and Amended Record of Decision is being developed to designate H-Canyon processing of Al-based SNF as the preferred alternative

Successful Endstate

Completion of the Enriched Uranium Disposition Project together with the SNF Transfer will result in:

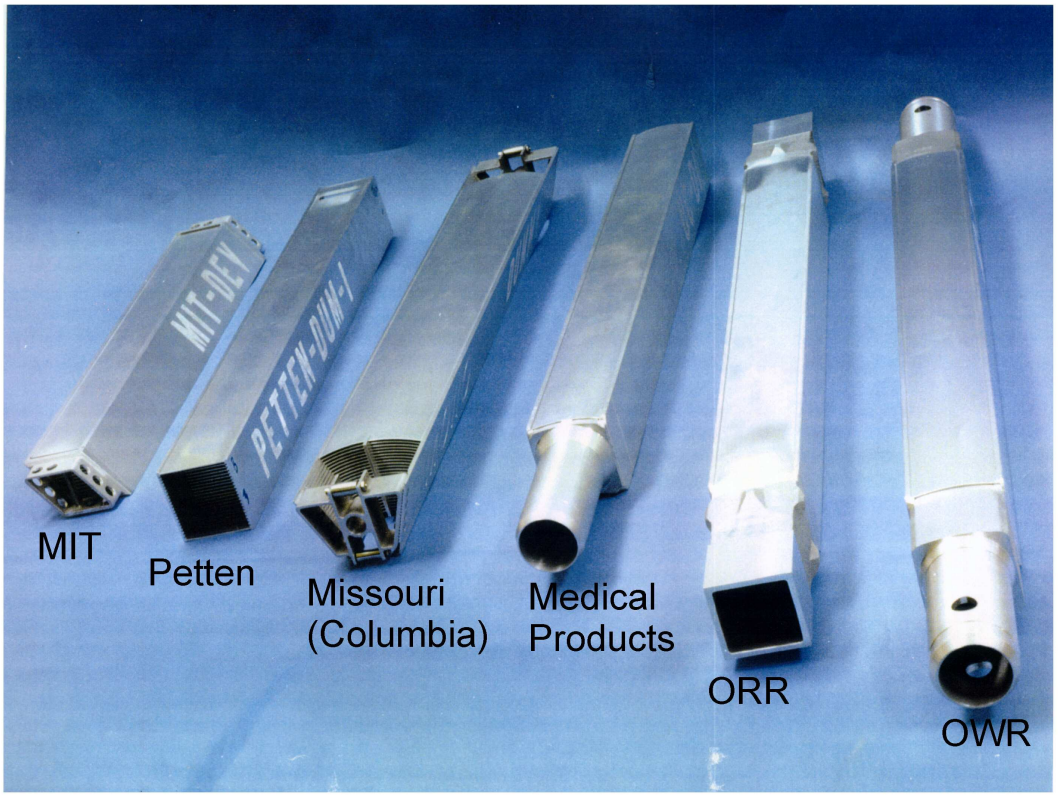
1. **Elimination of the entire SNF inventory at SRS:**
   - ✓ Dissolution of ~11000 Al-based SNF assemblies currently at SRS
   - ✓ Dissolution of ~3000 Al-based SNF coming from FRR and DRR
   - ✓ Dissolution of ~4000 Al-based SNF assemblies coming from INL
   - ✓ Transfer of ~2000 non-aluminum SNF assemblies at SRS to INL
2. **Reduction of the number of shipments of SNF from DOE Sites to the repository**
3. **Recovery of a valuable national resource, useful fissile materials, for energy use**
4. **Elimination of the need for SRS to build and operate a SNF packaging and dry storage facility**

Projected Shipment Planning Information

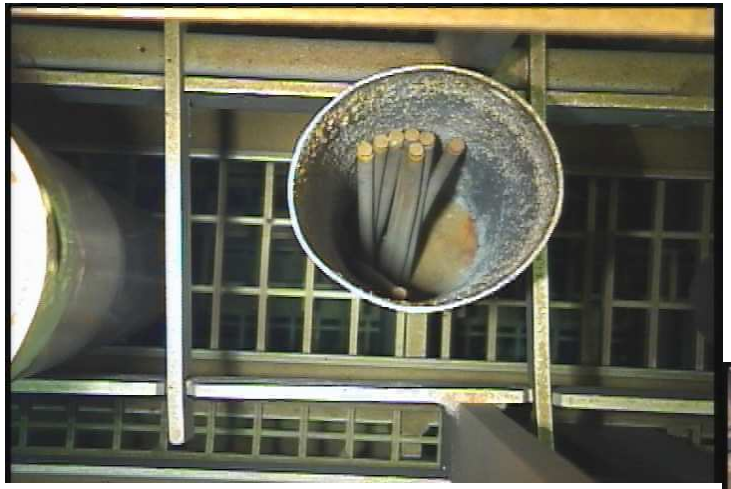
	Assemblies/Pieces	Estimated Shipments	MTHM
SRS to INL	~2000	50 – 150	~20
INL to SRS	~4000	150 – 250	~3.8

Scheduled to begin FY10 and complete FY2019

Typical aluminum Material Test Reactor (MTR) Assemblies



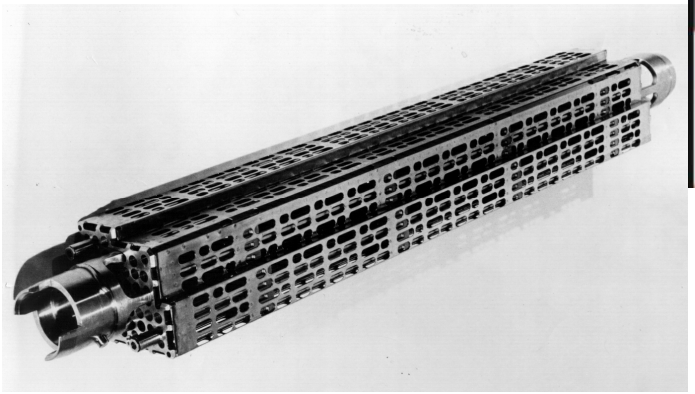
SRS Non-aluminum SNF



Loose
Pins/Rods

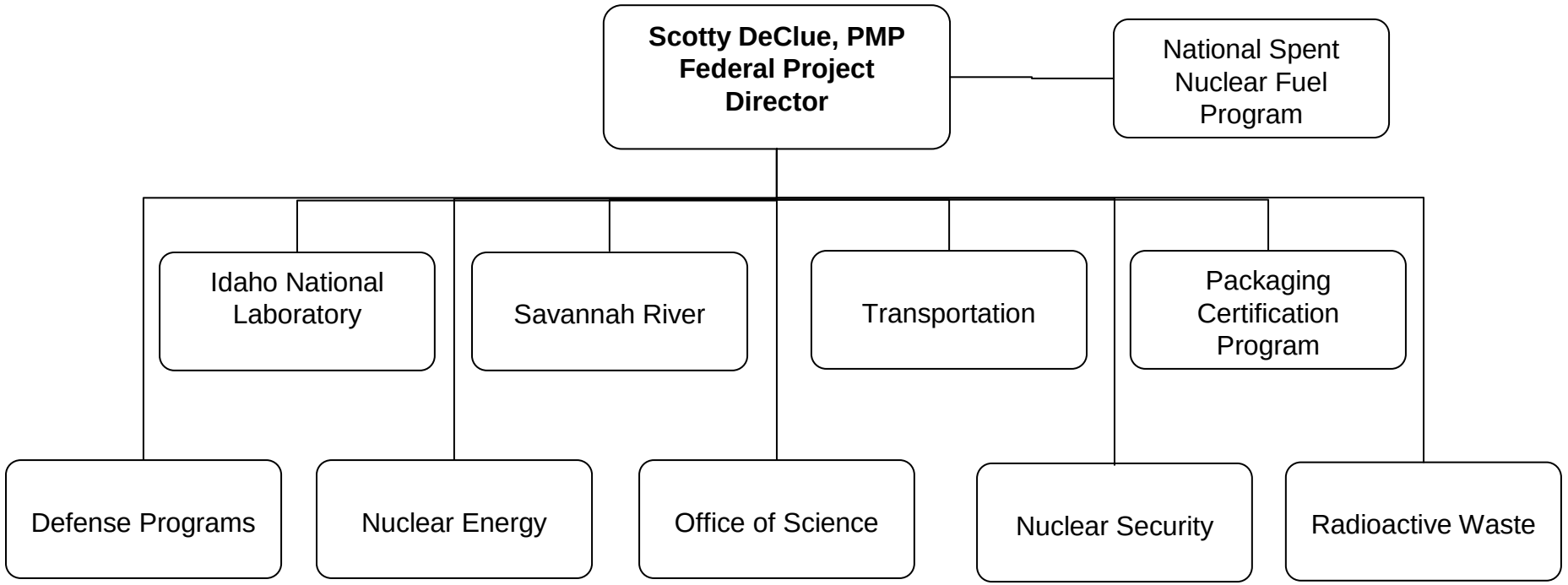
GCRE Pin Bundle

Gas Cooled Reactor Experiment

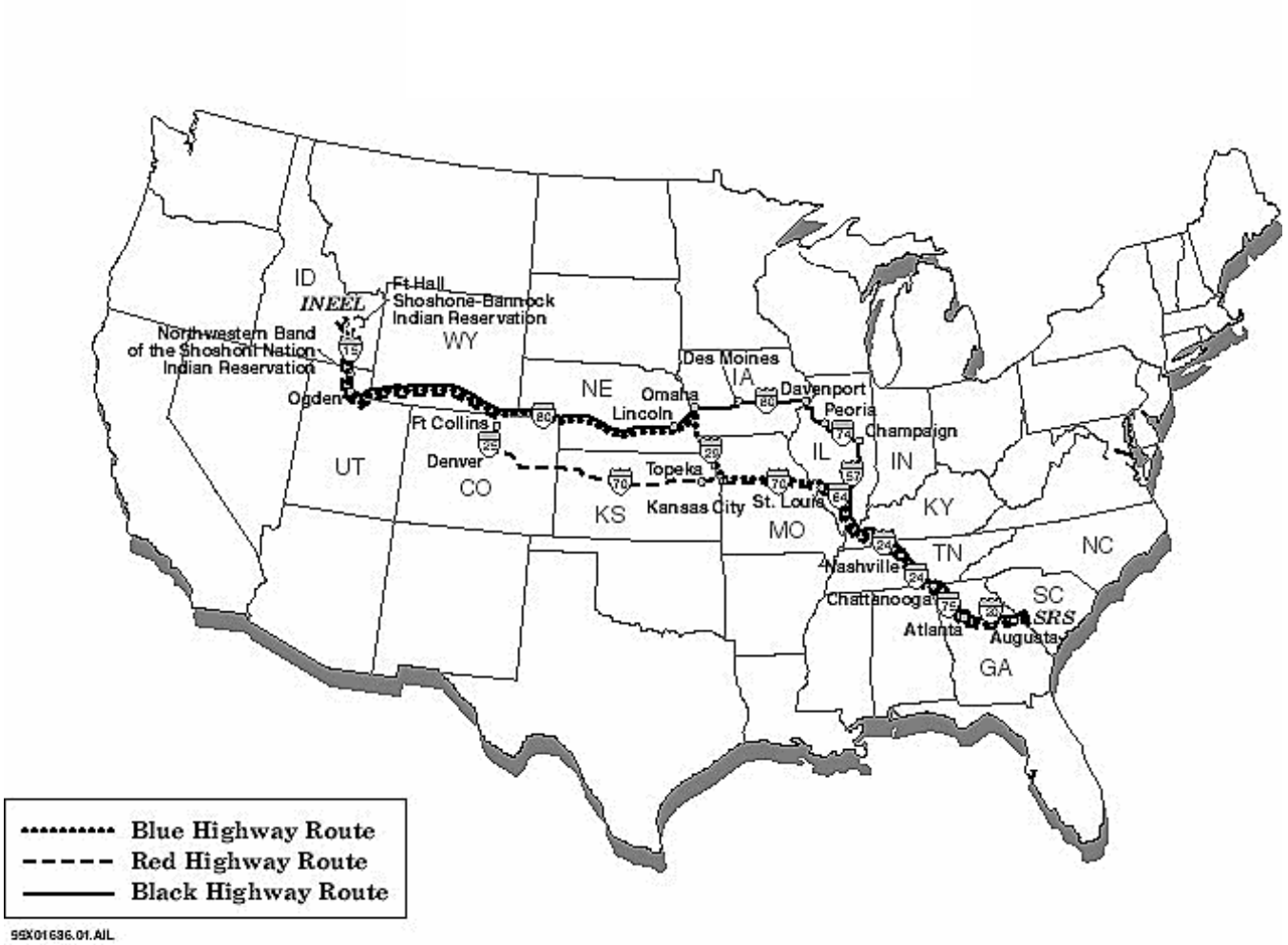


Saxton (intact)

SNF Transfer Integrated Project Team



SNF Transfer Potential Routes



Critical Path

Activities to be completed prior to initiating Shipping Campaign

1. Issue SNF Transfer Transportation Plan
2. Issue SNF Transfer Security Plan
3. SRS and INL Facility Modifications, Procedures, Training
4. DOE Readiness Assessment

Confidence

SNF Transfer shipments will be completed safely

1. Using the Domestic Research Reactor, Foreign Research Reactor, and WIPP shipments as a basis to design transportation program
2. Integrated Project Team formed and working the issues
3. Stakeholder interaction welcomed

Effective Communication will be the key to success!